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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,610	08/15/2005	Takaaki Iwaki	450100-04679	4094

7590 09/27/2007
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EXAMINER

CRUZ, MAGDA

ART UNIT	PAPER NUMBER
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2851

MAIL DATE	DELIVERY MODE
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09/27/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/521,610	IWAKI ET AL.	
	Examiner	Art Unit	
	Magda Cruz	2851	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>01/14/2005</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 5-6, 8-9 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishikawa et al. in view of Ikari et al.

Nishikawa et al. (JP 2002-107829 A) disclose:

- Regarding claims 1 and 8, a plurality of spacers (Figure 1a, element 30) are disposed at appropriate spaced intervals between the confronting lenses of the two sheet-like members (Figure 1a, elements 10 and 20) within an effective screen area (Figure 2e, element 70) and in a peripheral region of the effective screen area for passing and focusing the image light thereon (clearly illustrated in Figure 2e).
- Regarding claims 2 and 9, a lenticular lens sheet (Figure 2d, element 50) having a lenticular lens (Figure 2d, element 52) formed on at least one surface thereof and a Fresnel lens sheet (Figure 2d, element 40) having a Fresnel lens (Figure 2d, element 42) formed on one surface thereof.

- Regarding claims 6 and 13, the spacers (element 30) are formed to a size kept within a rectangular parallelepiped region having a depth, and a height each of 1 mm or less (element T_a ; see Table 1 on page 4).

Nishikawa et al. teach the salient features of the present invention as explained above except (regarding claims 1 and 8) two sheet-like members each made of a transparent material and having minute lenses formed on at least one surface thereof are disposed such that the surfaces with the lenses formed thereon confront each other and (regarding claims 5 and 12) spacers formed integrally with one of the sheet-like members.

Ikari et al. (US Patent Number 6,618,196 B2) disclose:

- Regarding claims 1 and 8, two sheet-like members (Figure 2, element 1 and 2) each made of a transparent material and having minute lenses formed on at least one surface thereof are disposed such that the surfaces with the lenses formed thereon confront each other (clearly illustrated in Figure 2).
- Regarding claims 5 and 12, spacers (Figure 2, element 4) formed integrally with one of the sheet-like members (Figure 2, element 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the two sheet-like members disclosed by Ikari et al. in combination with Nishikawa et al.'s invention for the purpose of fixing both lens sheets (Ikari et al., column 3, line 66).

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3. Claims 3 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishikawa et al. in view of Ikari et al. as applied to claims 1-2, 5-6, 8-9 and 12-13 above, and further in view of Honda et al.

Nishikawa et al. (JP 2002-107829 A) in combination with Ikari et al. (US Patent Number 6,618,196 B2) teach the salient features of the present invention as explained above, except a compound-eye lens sheet having a compound-eye lens formed on one surface.

Honda et al. (US Pub. No. 2003/0030903 A1) disclose a compound-eye lens sheet (Figure 3B', element 11) having a compound-eye lens (Figure 3B', element 13b) formed on one surface.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the compound-eye lens sheet disclosed by Honda et al. in combination with Nishikawa et al.'s invention for the purpose of widening the range within which the image can be visually recognized in the vertical direction (Honda et al., page 3, paragraph 0036, lines 13-15).

4. Claims 4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishikawa et al. in view of Ikari et al. as applied to claims 1-2, 5-6, 8-9 and 12-13 above, and further in view of Ota et al.

Nishikawa et al. (JP 2002-107829 A) in combination with Ikari et al. (US Patent Number 6,618,196 B2) teach the salient features of the present invention as explained above, except spacers positioned between the crests of lens elements of the confronting lenses of the two sheet-like members.

Ota et al. (JP 2001-324766 A) disclose spacers (Figure 5, element 22) positioned between the crests of lens elements of the confronting lenses of the two sheet-like members (Figure 5, elements 21 and 23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize spacers positioned between the crests of lens elements of the confronting lenses as shown by Ota et al. in combination with Nishikawa et al.'s invention for the purpose mutually separating the confronting surfaces of the Fresnel lens and the lenticular lens (Ota et al., abstract).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hori (US Patent Number 6,348,993 B1) discloses a method of manufacturing a translucent screen and rear projection display apparatus.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Magda Cruz whose telephone number is (571) 272-2114. The examiner can normally be reached on Monday through Thursday 8:00-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diane Lee can be reached on (571) 272-2399. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



DIANE I. LEE
SUPERVISORY PATENT EXAMINER

Magda Cruz
Patent Examiner

September 20, 2007